

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of

Jun HATAKEYAMA et al.

Application No.: New U.S. Application

Filed: March 11, 2004

Docket No.: 118988

For: AN ANTI-REFLECTION FILM MATERIAL AND A SUBSTRATE HAVING AN ANTI-REFLECTION FILM AND A METHOD FOR FORMING A PATTERN

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Pursuant to 37 CFR §1.56, the attention of the Patent and Trademark Office is hereby directed to the references listed on the attached PTO-1449. Unless otherwise indicated herein, one copy of each reference is attached. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the references be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

- ☒ 1. This Information Disclosure Statement is being filed (a) within three months of the U.S. filing date of this non-CPA application, OR (b) before the mailing date of a first Office Action on the merits in the present application. No certification or fee is required.
- ☒ 2. Relevance of the non-English language references 1-24 is discussed in the present specification.
- ☒ 3. The present application was filed or entered the U.S. National Stage of the PCT after June 30, 2003. In accordance with the June 11, 2003, Notice waiving the requirements of 37 C.F.R. §1.98(a)(2)(i), copies of any U.S. patents and patent application publications are not attached.
- ☒ 4. English-language Abstracts of the non-English language references 3-20 are attached hereto.

- ☒ 5. A computer-generated English translation of the following Japanese Patent Publication has been obtained from the website of the Japanese Patent Office (<http://www.jpo.go.jp>), and is attached, but has not been reviewed for accuracy. See References 3-17.

Respectfully submitted,



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<p>DEPOSIT ACCOUNT USE AUTHORIZATION Please grant any extension necessary for entry; Charge any fee due to our Deposit Account No. 15-0461</p>
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Form PTO-1449 (REV. 8-83)		US Dept. of Commerce PATENT & TRADEMARK OFFICE		ATTY DOCKET NO. 118988		APPLICATION NO. New U.S. Application	
INFORMATION DISCLOSURE STATEMENT  (Use several sheets if necessary)				APPLICANT(S) Jun HATAKEYAMA et al.			
				FILING DATE March 11, 2004		GROUP	
U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	
	1.	US 6,420,088 B1	7/16/2002	ANGELOPOULOS et al.			
	2.	5,294,680	3/15/1994	KNORS et al.			
FOREIGN PATENT DOCUMENTS							
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	
	3.	JP A 10-69072 w/abstract & transl.	3/10/1998	JAPAN			
	4.	JP B2 7-69611 w/abstract & transl.	7/31/1995	JAPAN			
	5.	JP A 6-118631 w/abstract & transl.	4/28/1994	JAPAN			
	6.	JP A 6-118656 w/abstract & transl.	4/28/1994	JAPAN			
	7.	JP A 8-87115 w/abstract & transl.	4/2/1996	JAPAN			
	8.	JP A 8-179509 w/abstract & transl.	7/12/1996	JAPAN			
	9.	JP B2 3287119 w/abstract & transl.	3/15/2002	JAPAN			
	10.	JP B2 3118887 w/abstract & transl.	10/13/2000	JAPAN			
	11.	JP A 2000-356854 w/abstract & transl.	12/26/2000	JAPAN			
	12.	JP A 5-27444 w/abstract & transl.	2/5/1993	JAPAN			
	13.	JP A 11-60735 w/abstract & transl.	3/5/1999	JAPAN			
	14.	JP A 6-138664 w/abstract & transl.	5/20/1994	JAPAN			
	15.	JP A 2001-53068 w/abstract & transl.	2/23/2001	JAPAN			
	16.	JP A 2001-92122 w/abstract & transl.	4/6/2001	JAPAN			
	17.	JP A 2001-343752 w/abstract & transl.	12/14/2001	JAPAN			
	18.	JP A 57-83563 w/abstract	5/25/1982	JAPAN			
	19.	JP A 57-131250 w/abstract	8/14/1982	JAPAN			
	20.	JP A 56-129261 w/abstract	10/9/1981	JAPAN			
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)							
	21.	Won D. Kim et al.; "Investigation of Hardmask/BARC Materials for 157nm Lithography"; In Microlithographic Techniques in Integrated Circuit Fabrication II, Chris A. Mack, Xiacong Yuan, Editors, Proceedings of SPIE;					
		Vol. 4226; 2000; pp 93-106					

Date: March 11, 2004

	22.	Tom Lynch et al.; "Properties and Performance of Near UV Reflectivity Control Layers"; SPIE; Vol. 2195; pp 225-229
	23.	Qinghuang Lin et al.; "A High Resolution 248 nm Bilayer Resist"; Part of SPIE Conference of Advances in Resist Technology and Processing XVI, Santa Clara, California; March 1999; SPIE; Vol. 3678; pp 241-250
	24.	Peter Trefonas et al.; "Organic Antireflective Coatings for 193nm Lithography"; Part of SPIE Conference of Advances in Resist Technology and Processing XVI, Santa Clara, California; March 1999; SPIE; Vol. 3678; pp 702-712
EXAMINER		DATE CONSIDERED
Examiner: Initial if citation considered, whether or not citation is in conformance with M.P.E.P. 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.		

Date: March 11, 2004